XNEXT

ADVANCED INSPECTION TECHNOLOGY

SEE THE IMPOSSIBLE, SEE THE FUTURE

XSPECTRA   XINSPECTOR

Visionary I Revolutionary I Innovator

We were visionary from the start. We set out to make a revolution in the field of quality and safety controls. Thanks to XSpectra® we do not simply offer something new, we rather offer something different, that can really make the difference. This is…
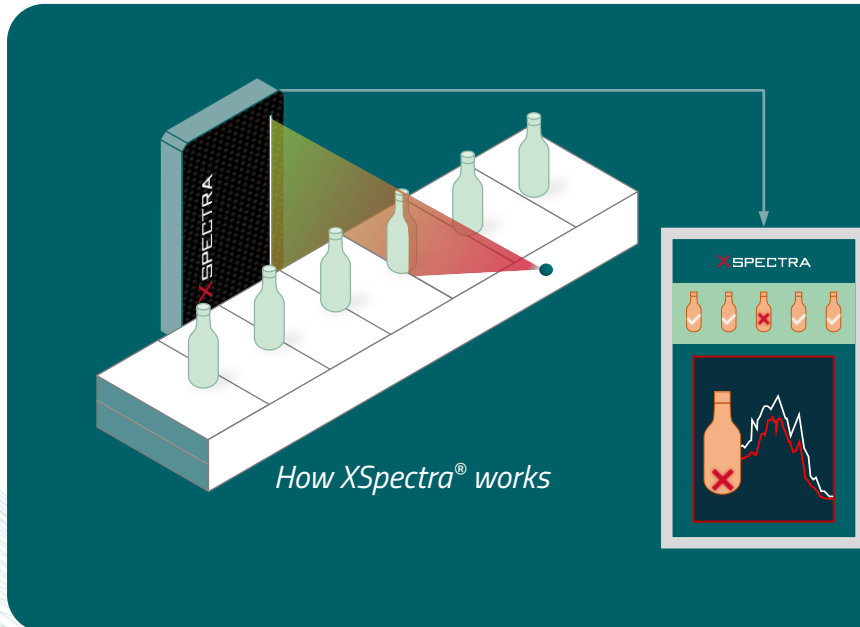
XNEXT
ADVANCED INSPECTION TECHNOLOGY

Xnext is a project started from a patent in 2011. It became a company in 2014 and after 10 years of applied R&D and more than € 10 mln of investments our proprietary technology XSpectra® became an industrial application.

Today XSpectra® is not just an innovation but rather a relevant technological leap compared to other inspection technologies available on the market.

The first use case was in 2020, to inspect filled pasta. Since then we have installed over 30 machines in 7 different food applications in 3 different countries. Leading food companies in their field have trusted our technology to reach the highest level of food safety.

The 1st company in the world…

- ✓ to **DESIGN** a multi-energy detector for food inspection

- ✓ to **DEVELOP** an inspection SW based on AI techniques

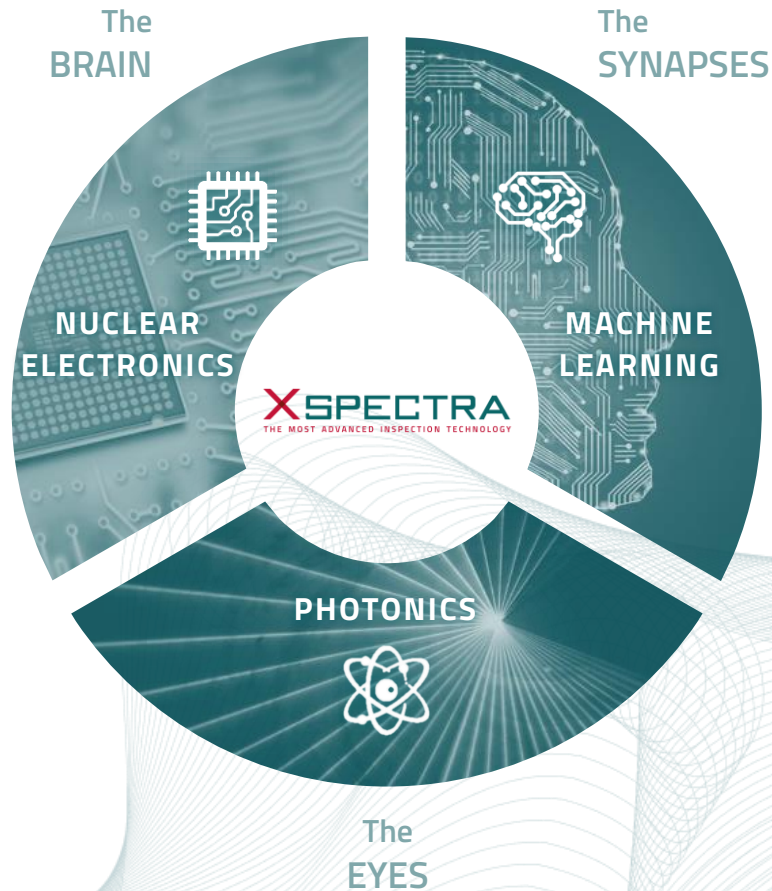- ✓ to **BUILD** the whole system in-house

XSPECTRA

How XSpectra® works

- a unique synergy of **photonics, nuclear electronics** and **machine learning**

- In a **few milliseconds**, it performs a **chemical-physical analysis** of each product on the processing line

- **ME** — a **spectral analysis** comparing up to **1024 energy levels** the **different photons absorption** of the product with respect to the contaminant

About our technology

XSpectra® is a groundbreaking technology, a new generation of X-ray inspection system capable of performing a real-time chemical-physical analysis of the product to identify foreign bodies currently undetectable by existing inspection technologies

Machine Learning | Nuclear Electronics | Photonics

About XSpectra®

The
BRAIN

The
SYNAPSES

NUCLEAR ELECTRONICS

MACHINE LEARNING

XSPECTRA
THE MOST ADVANCED INSPECTION TECHNOLOGY
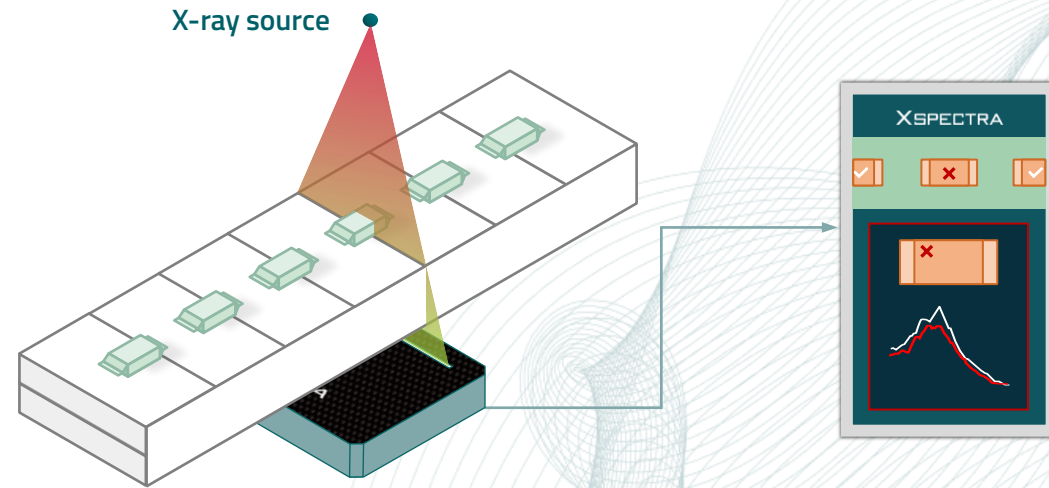
PHOTONICS

The
EYES

The most advanced food inspection system

XSpectra® is our proprietary **patented technology**, fully developed in-house through over 10 years of R&D.

It's the result of the unique **synergy of 3 levels of high technological innovations**, as shown in the diagram at the side.

XSpectra® is particularly performing at low x-ray energies (down to 5keV) to **detect low-density foreign bodies**, whereas conventional systems, also based on x-ray inspection, start from 25keV up.
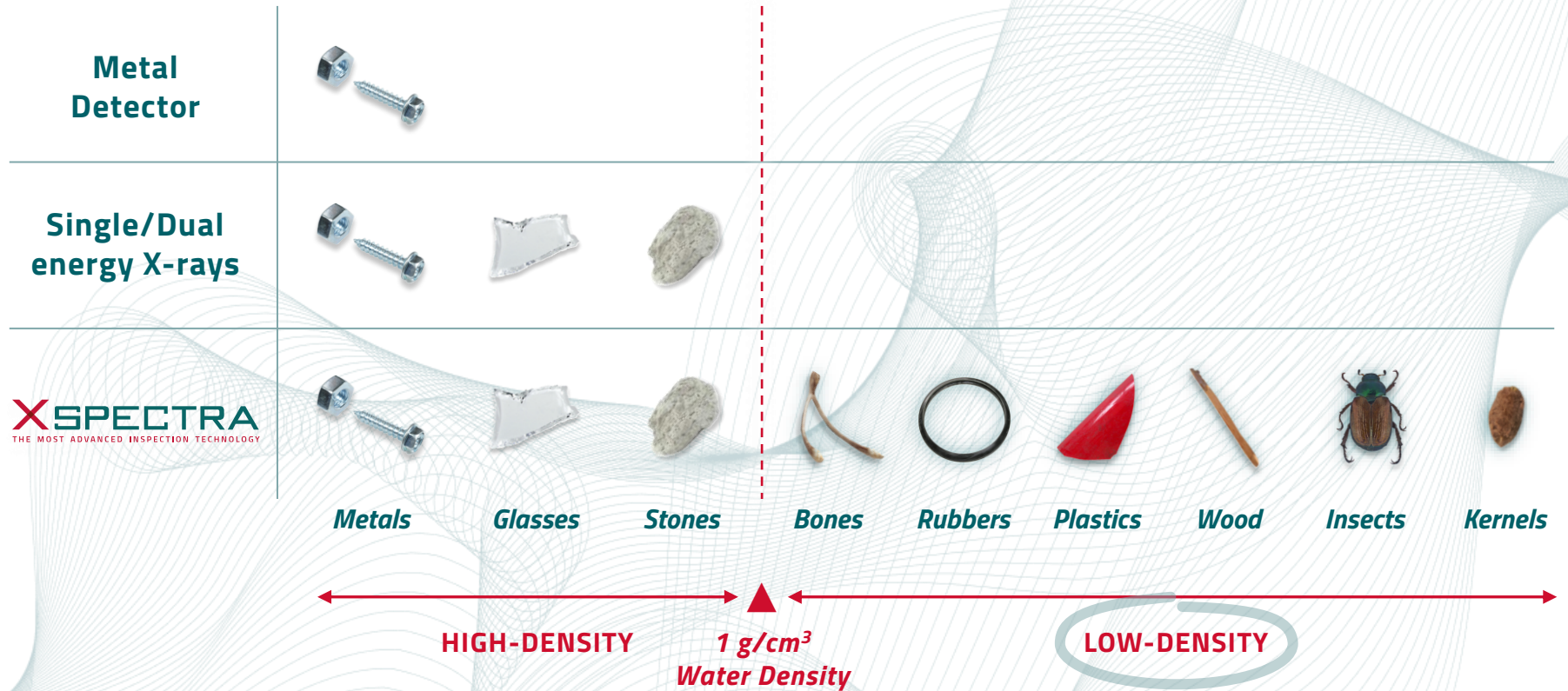
X-ray source

How
XSpectra® works

Our inspection system performs a rather complex analysis in a very short timeframe: **within a few milliseconds it carries out a spectral analysis**, comparing up to **1.024 energy levels** the different absorption of the product with respect to the contaminant, to detect non-conformities.
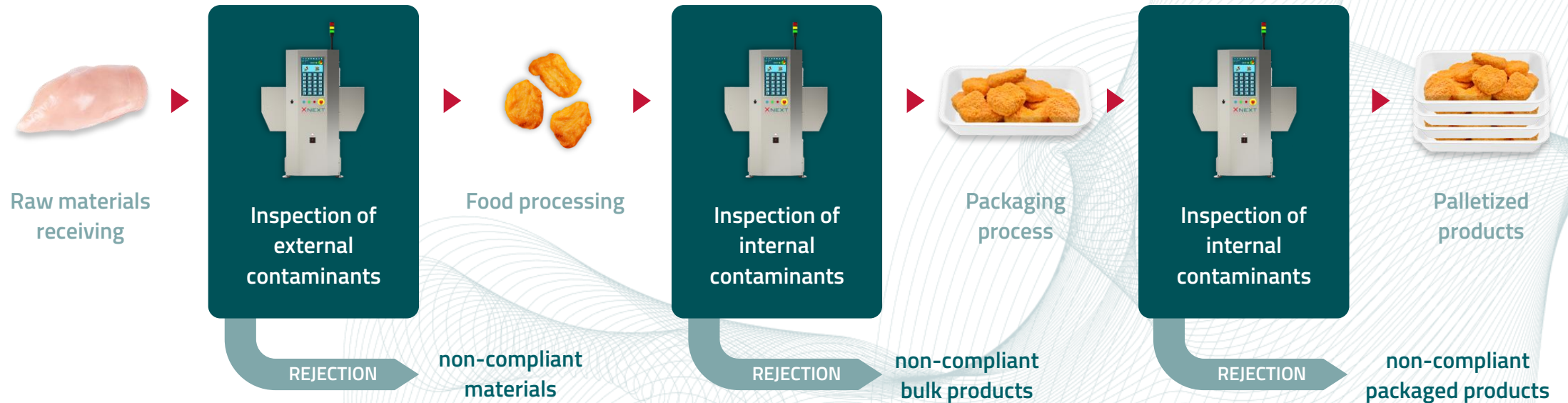
In practice, the machine performs **real-time a chemical-physical analysis** of every single product passing on the processing line.

The **competitive advantage of XSpectra®** over conventional inspection systems

We detect what others fail

Metal Detector				
Single/Dual energy X-rays				

XSPECTRA
THE MOST ADVANCED INSPECTION TECHNOLOGY

Metals *Glasses* *Stones* *Bones* *Rubbers* *Plastics* *Wood* *Insects* *Kernels*

HIGH-DENSITY **1 g/cm³** **LOW-DENSITY**
Water Density

A solution all along the production line

Raw materials receiving

Inspection of external contaminants

Food processing

Inspection of internal contaminants

Packaging process

Inspection of internal contaminants

Palletized products

REJECTION → non-compliant materials

REJECTION → non-compliant bulk products

REJECTION → non-compliant packaged products

A revolutionary inspection system that detects low-density foreign bodies **all along the processing line**, on bulk or packaged products. A **turnkey solution**, easy to use and integrate on existing lines

A few examples of current field applications

What can't be seen
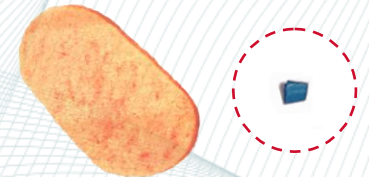

Olive kernel
in pitted olives jar

Bone fragment
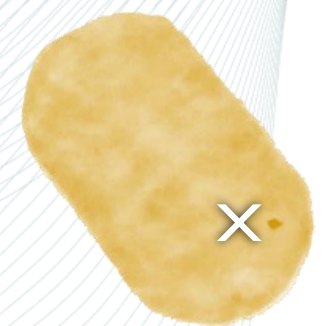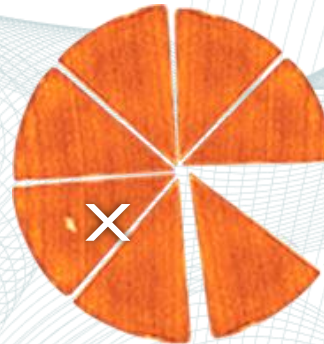in filled pasta
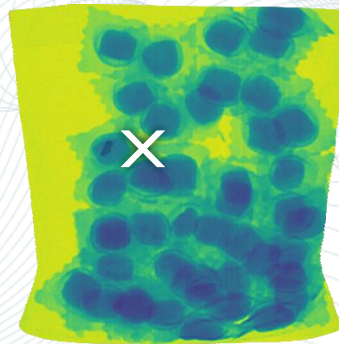
Plastic fragment
in cheese

Worm
in salad bag

EPDM gasket
in chicken cutlet

What XSpectra® detects

Xnext offers a selection of standard inspection solutions which **can meet any specific need** in the food production.

A user-friendly machine with a sleek design, embedding an extremely complex system, made of **up to 12,000 different components**

Our machines lineup

Top-Down Inspection

Top-Down Inspection XL

Lateral/Diagonal Inspection

Why investing in XSpectra®

Hardware

▶ A **Modular system**, which can be easily integrated with other technologies (IR, check-weight, etc.) for a turnkey solution

▶ **Continuous improvements** thanks to the periodic technological upgrade of the detector

To achieve the highest food safety standards we offer an "open" system, customizable to satisfy any customer's need

Software

▶ XInspector **specifically trained** for each food application

▶ More effective detection of foreign bodies, with an **innovative user graphics interface**

▶ **Upgradeable** to integrate new product variability

About us

Xnext is a leading deep tech company, an Italian technology innovator with the ambition to impact the quality control industry, overcoming the weaknesses of conventional inspection technologies

Visionary I Revolutionary I Innovator

44 professionals - including 7 PhD, to remark the crucial **importance of high-skilled human capital** for our knowledge-intensive company's competitiveness and continuity

A highly motivated Group

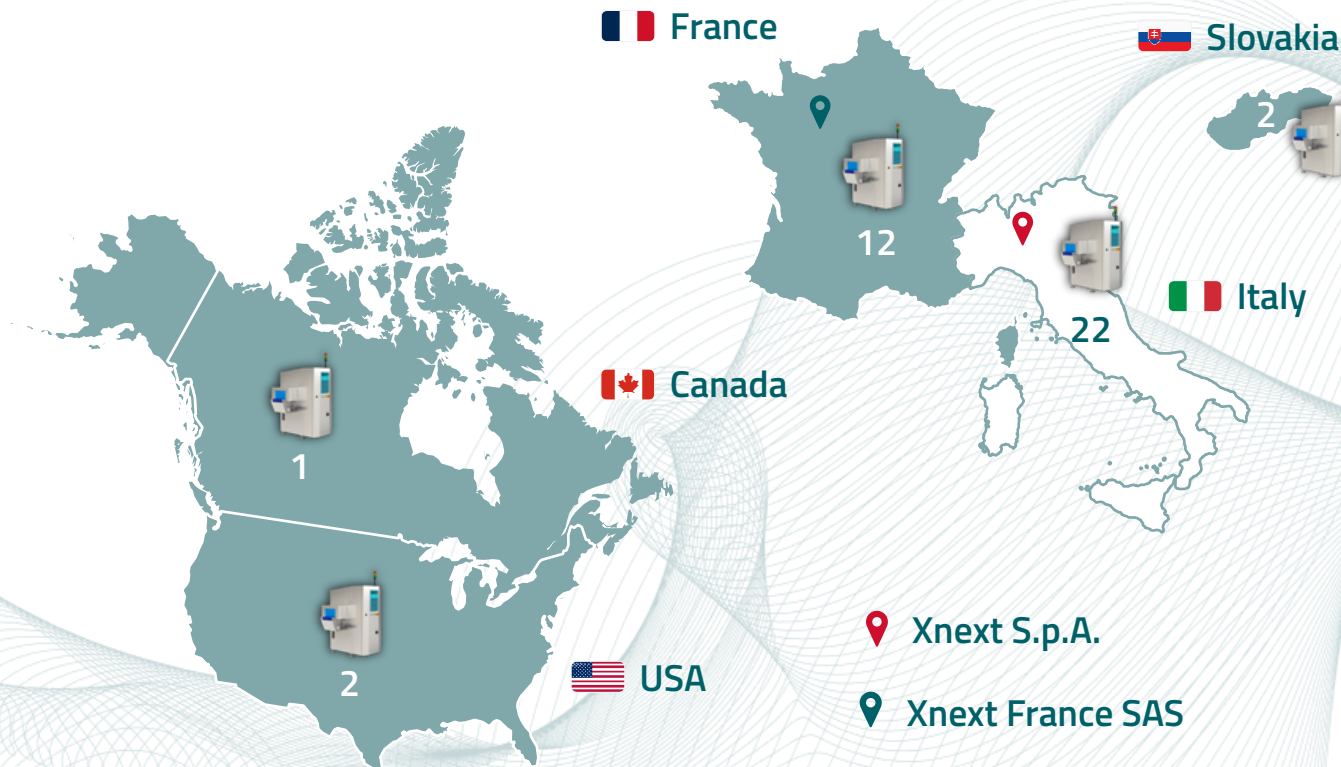| Management | Business Development | Team XInspector | Team OBS | Team XSpectra | Engineering & Operations | HR | Administration |

Where we are

39
installations
(by end of Q1 2023)

5
countries

2
continents

🇫🇷 France

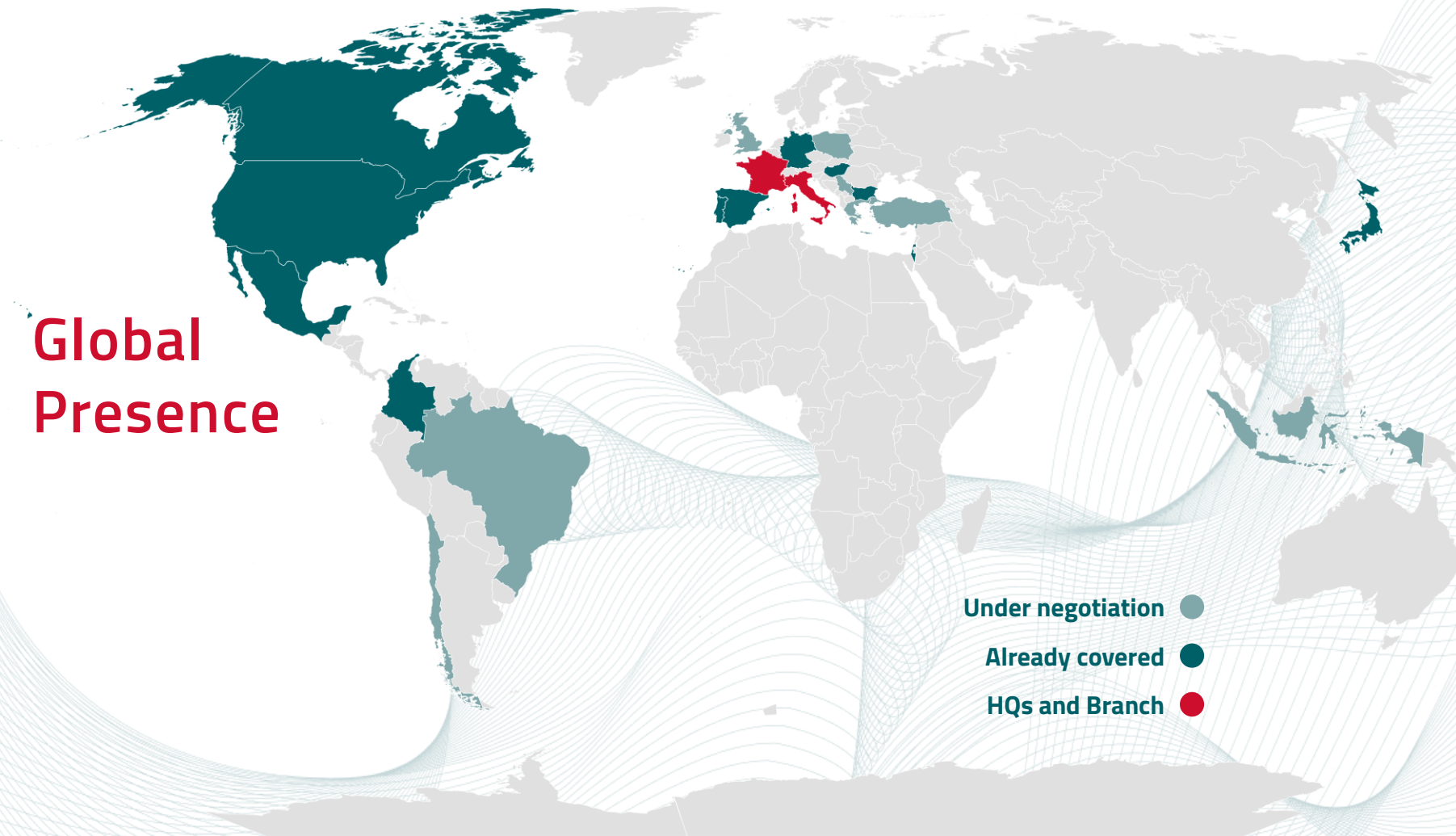🇸🇰 Slovakia

2

🇨🇦 Canada

🇮🇹 Italy

12

22

1

2

🇺🇸 USA

📍 Xnext S.p.A.

📍 Xnext France SAS

Headquarters are located in Milan, **2000 sqm where all the operations are concentrated**, together with the assembling and testing activities

Since 2021 we have a **branch in Le Mans - France**, which is providing our local customers with commercial, R&D and post-sales support

Global Presence

Since 2022, we have initiated **distribution agreements** to cover new geographic areas.

We have currently **5 distributors in place** and almost other **10 soon** to be activated

Under negotiation ●
Already covered ●
HQs and Branch ●

Trust from the Market

Salad	Bonduelle	Belgravia	freschezza seconda natura FACCHINI	RAGO
Meat	Amadori	aubret	BAHIER DEPUIS 1941	BORDEAU CHESNEL
Cheese	bel	GROUPE LACTALIS		
Dry Legumes	AGRIA select			
Bakery	DECO			
Filled Pasta	Giovanni Rana RANA			
Preserves	ALICOS			

Our customers are companies and groups that hold a leading position in their field, some of them worldwide. They have invested in XSpectra® as they **pay a high degree of attention to the quality and safety of their foodstuff**

Our high-skilled service team supports customers for every **periodic and extraordinary maintenance needs**, in order to minimize the risk of a production stop and to ensure the reliability of our machines, **always performing at their highest levels**

Service H24/7

Within the Service we distinguish between:

▶ **warranty intervention**

▶ **out-of-warranty intervention covered** by a service contract *(Preventive care)*

▶ **out-of-warranty intervention not covered** by a service contract

For customers who have purchased more than one machine, located at the same production site, we can offer customized service solutions and support them in the management of a local warehouse of spare parts and components

Demo Center

At Xnext HQ we have set up a **Demo Center** where a 6 mt loop line can be equipped with up to two machines to **train the inspection SW** about the products' specificity and allow the customers to directly test the performance of XSpectra®

The goal is to **reproduce the conditions of a production line**, adaptable to different types of products (which can be conveyed lying down or vertically), to perform **realistic tests**

Our Main Recent Achievements

UL Certification

July 2023

UL certification testifies to our machines' continued compliance with applicable safety standards, opening the door to the North American market

ITQF - *Campioni della crescita* 2023

November 2022

The list drawn up by the German quality institute ITQF is dedicated to the companies with the highest rate of development over the last 3 years. Xnext was placed in 53rd position (out of 800 selected companies) due to its rapid development in the food inspection sector in Italy and abroad

ISO Certifications

May 2022

ISO 9001:2015 – Quality Management Systems
ISO 14001:2015 – Environmental Management Systems

EU Horizon 2020

March 2019

Xnext has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement N° 849381

Request a quote

To make a proper quote, we need some details about the products to be inspected and the production line

Product information

- 📦 Type of product to be inspected
- 📦 Size and weight
- 🧱 Main product features

Technical info about the line

- 🎚️ Product flow rate/minute
- 📏 Conveyor belt width

Quality & assurance policy

- 🛡️ Country/region regulations
- 📋 Certifications/standards required

Please send your request at: **sales@x-next.com**

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